DOCUMENT RESUME

ED 263 256 UD 024 527

TITLE	Preparation for Raising Educational Performance (PREP) 1983-84. OEA Evaluation Report.
INSTITUTION	New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.
PUB DATE	[85]
NOTE	73p.
AVAILABLE FROM	Office of Educational Assessment, New York City Board of Education, 110 Livingston Street, Brooklyn, NY 11201.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Career Awareness; Class Organization; *Grade 9; High Schools; Program Implementation; Remedial Mathematics; *Remedial Programs; Remedial Reading
IDENTIFIERS	New York (New York); Preparation for Raising Educational Performance NY

ABSTRACT

The 1983-84 Preparation for Raising Educational Performance (PREP) program was a theme-based program of instruction and supportive services for incoming ninth graders who are substantially below grade level in reading and mathematics. PREP was offered in 91 public high schools in New York City and provided services for nearly 12,000 students. Students scoring between 5.1 and 7.1 in reading grade equivalents or below the 6.6 grade level in mathematics were in PREP A and students scoring at or below the 5.0 grade level in reading were in PREP B. The theme-related classes were designed to improve students' basic skills and strengthen their perception of the relationship between academic success and future careers. Themes included: Careers; Computers; High Technology and the Future; and Communication and the Arts. Program goals for attendance and attitudes toward school were met. Overall achievement gains of PREP students were eight months in reading and six months in mathematics. PREP B students made significantly higher gains than PREP A students. Analyses suggest that the program was most effective with students below grade level in only one skill area and with those who were far below grade level in both skills areas. Staff training was limited, and academic teachers had difficulty integrating the PREP themes into courses, while vocational teachers found it hard to integrate skills instruction. Major recommendations for program improvement are: (1) extend PREP eligibility criteria; (2) consider aiding schools in developing themes that are clearly goal oriented; (3) give schools assistance in setting up block programs that are well developed and successful; (4) give teachers time for planning and articulation through scheduling and common free periods. (CG)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

T. K. Minter

NYC Board of Ed.

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PREPARATION FOR RAISING
EDUCATIONAL PERFORMANCE
(PREP)
1983-84

OEA Evaluation Report

Evaluation Section Report
Robert Tobias, Administrator
John E. Schoener, Senior Manager
Function Number: 5001-56-41602

PREPARATION FOR RAISING EDUCATIONAL PERFORMANCE (PREP) 1983-84

Simon Fenster
Program Director

Prepared By The
High School Evaluation Unit:

Dolores M. Mei
Evaluation Manager

Frank Guerrero
Evaluation Specialist

Carol Meyer
Evaluation Consultant

New York City Public Schools
Office of Educational Evaluation
Richard Guttenberg, Director

ACKNOWLEDGEMENTS

The production of this report is the result of a collaborative effort of full-time staff and consultants. In addition to those whose names appear on the cover, Elly Bulkin, Warren Cohen, Emily Guile, Ronnie Lesser, Vernay Mitchell, Jeffrey Ringle, Stephen Sicilian, Randa Sununu, and Jerry Woods spent many hours observing program implementation and interviewing staff and students to collect the data upon which this report is based. Frances Durney typed, corrected, and duplicated this report. The Unit could not have handled such a large volume of work and still produce quality evaluation reports without their able participation.

SUMMARY

The 1983-84 Preparation for Raising Educational Performance (PREP) program was a theme-based program of instruction and supportive services for incoming ninth graders who are substantially below grade level in reading and mathematics. In its first year of operation, PREP was offered in 91 public high schools and provided services for nearly 12,000 students.

The primary means of determining PREP eligibility were student scores on citywide tests given during spring, 1983 and fall, 1984.

PREP had two components: PREP A, which included students scoring between 5.1 and 7.1 in reading grade equivalents or below the 6.6 grade level in mathematics and PREP B, which included students scoring at or below the 5.0 grade level in reading. Nearly all of the 91 schools had PREP A students, and many of them had small numbers of PREP B-eligible students. Nine schools were centrally-designated PREP B sites; seven of the nine were vocational-technical schools. The Office of Educational Assessment/High School Evaluation Unit selected a representative sample of 23 academic-comprehensive and nine vocational-technical high schools for evaluation visits.

Theme-related classes designed to improve students' basic skills and strengthen their perception of the relationship between academic success and future careers were central to PREP. Theme selection was done by individual schools. The major theme categories identified included: The World of Work (Careers in General); Specific Careers; Computers, High Technology, and the Future; and Communications and the Arts. Career-oriented themes were particularly popular in both academic-comprehensive and vocational-technical schools: nearly half of the academic-comprehensive and over 90 percent of the vocational-technical schools in the sample focused on such themes. Many of the PREP programs at sample vocational-technical schools selected specific career-related themes which were part of their ongoing primary educational emphasis. Academic-comprehensive schools had more difficulty than the vocational-technical ones in settling on a theme which was compatible with student interests, staff specialties, and available equipment.

The perceptions of school administrators differed as to whether block programming PREP students increased their positive identification with the program or isolated them from the rest of the student body. Administrative attitudes affected block-programming decisions. Among sample academic-comprehensive schools, a quarter grouped PREP students only in official classes; one quarter kept them together for one or two skills classes; and the remainder block programmed them for at least three classes. PREP B vocational-technical schools tended to block program PREP B students for all or most of the day. Administrators explained this decision as compatible with the block-scheduling approach of vocational-technical schools; as necessary so that these students could take a more simplified program; and as useful because PREP B students tended to disrupt other students.

Vocational-technical schools, many of which were PREP B sites, were more likely than academic-comprehensive ones to have a guidance counselor working full time with PREP students. At both types of schools, PREP students received the services of guidance counselors, family assistants, and paraprofessionals. Some of this staff were funded specifically to work with PREP students; some worked with PREP students and with students in other programs.

Staff training was done on a limited basis, primarily by program coordinators and Chapter I/P.S.E.N.-funded staff development specialists. Teachers in academic-comprehensive schools often experienced difficulties in integrating the PREP theme into their courses, while vocational-technical school teachers who had little experience teaching basic skills found it hard to integrate skills instruction into the theme-based curriculum. Central program staff was not large enough to provide all of the staff development assistance desired by school staff.

PREP A student attendance (75 percent) was approximately the same as the attendance of non-PREP ninth graders; PREP B attendance (62 percent in the fall; 66 percent in the spring) was lower than that of the comparison group. The overall gains of PREP students were eight months in reading and six months in mathematics. PREP B students made significantly higher gains than PREP A students. Analyses suggest that the program was most effective with students who were below grade level in only one skills area and with those who were far below grade level in both skills areas.

Among the major recommendations are the following:

- Consideration should be given to extending PREP-eligibility criteria to factors such as students' junior high school grades, attendance records, and recommendations by teachers rather than relying solely on students' scores on citywide reading and mathematics tests.

- Central staff should consider aiding the schools in developing themes that are clearly goal oriented.

- The schools should be provided assistance in setting up block programs that are well developed and successful. This help might be provided by the PREP central office, or by creating a network of other schools that have had success in this area.

- Make an effort to supply teachers with time for planning and articulation through scheduling and providing common free periods.

TABLE OF CONTENTS

		Page
I.	Introduction	1
	Program Purpose and Features	1
	Population Served	1
	Program Objectives	2
	Program Evaluation	3
II.	Program Organization and Funding	5
	Program Organization	5
	School Staff Training and Curriculum Materials	6
	Funding	7
III.	Program Implementation in the Schools	9
	Program Staff	9
	PREP Themes	12
	Student Identification and Selection	15
	Block Programming	21
	Theme Implementation in Instruction	28
	Enrichment Activities	29
	Attendance Procedures	31
	Staff Development and Program Articulation	32
IV.	Staff and Student Perceptions of the PREP Program	35
	Staff Perceptions	35
	Student Perceptions	39
V.	Student Outcome Data	41
	Attendance	41
	Eligibility	41
	Academic Achievement Findings	46

		Page
VI.	Conclusions and Recommendations	52
	Program Sites and Students Served	52
	Program Goals	53
	Student Testing and Eligibility	54
	Student Programming	55
	Staff Selection and Scheduling	57
	Staff Development and Program Articulation	59
	Recommendations	60

APPENDIX:

TABLE A-1	PREP Themes at Sample Academic-Comprehensive High Schools	62
TABLE A-2	PREP Themes at Sample Vocational-Technical High Schools	64

LIST OF TABLES

Table		Page
1	Theme Categories and Percentage of Sample High Schools Selecting Each Theme	13
2	PREP Program Enrollments by the Percentage of the Ninth Grade Served At Sample Academic Comprehensive High Schools as of February, 1984	18
3	PREP Program Enrollments by the Percentage of the Ninth Grade Served At Sample Vocational Comprehensive High Schools as of February, 1984	19
4	Programming at Sample Academic-Comprehensive Schools	23
5	Programming at Sample Vocational-Technical Schools	25
6	Enrichment Activities Reported by Sample Academic-Comprehensive and Vocational-Technical Schools	30
7	Comparison of the Average 1983-84 Attendance of PREP and Non-PREP Students from All High Schools	42
8	1983-84 PREP Students from all High Schools Grouped by Eligibility (in Grade Equivalents)	45
9	Overall 1983-84 Mathematics and Reading Score Mean Gains in Normal Curve Equivalents and Grade Equivalents for PREP Students from All High Schools Grouped by Eligibility	47
10	Reading Gains of PREP Students by Eligibility Category	49
11	Mathematics Gains of PREP Students by Eligibility Category	51

I. INTRODUCTION

PROGRAM PURPOSE AND FEATURES

Preparation for Raising Educational Performance (PREP) is an integrated program of remediation, supportive services, and enrichment activities for entering high school students.* whose basic skills in reading and/or mathematics are substantially below grade level. The program was first implemented during the 1983 summer session, continuing on a system-wide basis during the 1983-84 school year.

The 1983-84 PREP program had three distinctive features:

1. It was theme-based. The schools participating in the program were asked to select a theme or themes that would provide a base for instruction and the opportunity for "hands on" experiential activities. Themes included "The World of Work," "Computers: The Language of the Future," or "Me and My Community".

2. It was school-based. Although the PREP program was structured around a number of centrally-developed guidelines, schools selected their own themes and planned their own program to meet the needs of the population being served.

3. It was student-based. The program was designed to serve both the educational and affective needs of each student qualifying for the program. Thus, in addition to receiving intensive remediation in needed skills areas, the 1983-84 PREP students were provided with such additional supportive services as guidance counseling, career counseling, and peer tutoring. The needs of the individual student were the focus of the program.

POPULATION SERVED

The 1983-84 PREP program was offered at all 91 academic-comprehensive and vocational-technical schools in the New York City public high school

---

* Although the program was intended primarily for entering ninth and tenth graders, schools were allowed to include holdover ninth graders, and tenth graders, if they chose to do so.

system.* It was not available at "alternative" or "special" high schools.

The population served by the 1983-84 PREP program included all ninth graders entering those schools who had scored below the 7.1 grade level on the citywide reading test or below the 6.7 grade level on the citywide mathematics test taken in May, 1983 or October, 1984.** This included a number of students who had formerly been in the Promotional Gates program and who could not meet matriculation requirements.*** Schools were also permitted to enroll tenth-graders or heldover ninth graders in the program if they chose to do so.

PROGRAM OBJECTIVES

The 1983-84 PREP program had a number of specific program objectives. They included the following:

1. To help program students improve their basic skills so that they could achieve academic success and compete successfully with their peers. Specifically, the program aim was to have these students gain at least one month on the standardized citywide reading and/or mathematics tests for each month of instruction.

---

* Academic-comprehensive schools offer an academic curriculum plus career-oriented and shop courses and a selection of electives to all students living in a specific geographic zone. Vocational-technical high schools prepare students for jobs in various trades or for admission to colleges or advanced technical schools, and accept applications from students in all boroughs. In some instances, applicants to a vocational-technical school must meet the requirements of the specific program.

** Students in the New York City public school system are required to take achievement tests in reading, and mathematics twice each year. These tests are scored in normal curve equivalents (N.C.E.s), which are then converted to grade equivalents (G.E.s). For a discussion of these measures, see Chapter V of this report.

*** The Promotional Gates program provides reduced class size, staff development, and intensive reading and mathematics instruction to students who did not meet citywide performance standards for promotion from the fourth and seventh grades.

2. To help these students successfully make the transition from junior high to high school. Specifically, the program aim was for PREP students to achieve an attendance rate that was comparable to their ninth-grade non-high risk peers.

3. To help these students improve their attitudes toward school as measured by students' responses to interview questions.

PROGRAM EVALUATION

Evaluation of the 1983-84 PREP program by the Office of Educational Assessment/High School Evaluation Unit (O.E.A./H.S.E.U.)* was designed to determine how the program was implemented in the schools, how successfully it met its objectives, and how it might be improved. Thirty-two of the 91 PREP sites were selected to provide a representative sample of school type, program size, and program elements. Members of the evaluation team interviewed school administrators, PREP program supervisors and coordinators, PREP teachers, and supportive services personnel at each of these 32 sites, using a detailed questionnaire. In addition, evaluation team members interviewed central program personnel; administered a questionnaire to a selected sample of PREP students; reviewed key program documents; and collected and analyzed student outcome data such as PREP students' scores on citywide reading and mathematics tests.

This report presents the complete results of that evaluation. Program structure and funding are delineated in Chapter II; implementation of the program in the schools is described in Chapter III; student and staff perceptions of the program are capsulized in Chapter IV; student outcome

---

* The Office of Educational Assessment was formerly known as the Office of Educational Evaluation.

data is analyzed in Chapter V; and conclusions and recommendations are presented in Chapter VI. Several tables of program data are presented in Appendix A.

II. PROGRAM ORGANIZATION AND FUNDING

PROGRAM ORGANIZATION

The 1983 Summer PREP program had served approximately 9,000 students at 45 program sites (each of which had been paired with at least one other "buddy" school so that the resources and staff of the paired schools could be shared). Each program site was under the supervision of an assistant principal (A.P.). The program sites in turn were organized into groups of five which were under the supervision of an "itinerant supervisor" who assisted the schools in setting up their PREP program and provided liaison with the PREP program office. The PREP central office was under the direction of the summer PREP program coordinator.*

The 1983-84 PREP program retained the same basic structure as the summer program except that the system of itinerant supervisors was replaced by a "PREP liaison" person in each borough superintendent's office, and principals at the 91 program sites were permitted to appoint someone other than an assistant principal to supervise the PREP program if they obtained permission to do so from their PREP liaison. The PREP central office remained under the management of a single program director, but two advisory committees of principals, supervising assistant principals, and program coordinators were formed to make recommendations on program organization for the spring, 1984 term.

Furthermore, the 1983-84 PREP program had two reading components. The PREP A component was designed to serve those students whose score on the

---

* "Summer 1983 High School PREP Program," an Office of Educational Evaluation/High School Evaluation Unit (O.E.E./H.S.E.U.) report, describes the program in detail.

citywide reading test taken in May, 1983 (prior to entering the ninth grade) or October, 1983 (after entering the ninth grade) was between 5.1 and 7.1 in grade equivalents. It was anticipated that each school would have a PREP A component.

The PREP B component was designed to serve those students who had scored at or below the 5.0 grade level in reading. Since it was anticipated that fewer students would fall into this category, nine schools were designated as official PREP B sites,* and program guidelines specifically stipulated that a full-time guidance counselor was to serve the PREP B students at these sites. Students identified as PREP B-eligible on the basis of their reading score were assigned to one of these nine sites by the PREP central office; however, they were given the option of attending their locally zoned high school if they chose to do so.

SCHOOL STAFF TRAINING AND CURRICULUM MATERIALS

The schools participating in the 1983-84 program were provided with training sessions and curriculum materials by the PREP program office. Full-day training workshops for teachers, PREP supervisors and coordinators, and other PREP staff members were held before the fall term began and during intersession, and monthly training sessions for PREP supervisors and coordinators were held throughout the school year. In addition, staff development specialists (S.D.S.s) working with the Chapter I and P.S.E.N. programs provided assistance to PREP classroom teachers on an informal basis.

---

* Three of these schools were academic-comprehensive schools: they were Adlai E. Stevenson, Park West, and Sarah J. Hale High Schools. Six were vocational-technical schools: they were Alfred A. Smith, East New York, Eli Whitney, Grace H. Dodge, Thomas A. Edison, and William Maxwell High Schools.

A handbook for PREP supervisors was prepared shortly after the 1983 summer session by the PREP program director; the handbook provided suggestions on how to select themes, how to develop a PREP program, etc. The handbook was revised and reissued for the spring, 1984 term. Teachers were provided with a manual which had been prepared by summer PREP teachers in cooperation with the Division of Curriculum and Instruction, and which provided detailed suggestions on how to integrate thematic material into basic skills and content area instruction.

FUNDING

The PREP program was funded by a combination of tax-levy and reimbursable sources, including federal Chapter I and Chapter II monies and New York State monies for Pupils with Special Educational Needs (P.S.E.N.)*.

The initial allocation for the program was 180.45 units or approximately $5.68 million dollars. Of this total, tax-levy funds provided 51.87 units and reallocated reimbursable funds provided 128.59 units.

After the high school projected the number of ninth graders that would be eligible for the PREP program in fall, 1983, the Division of High Schools made supplementary budget allocations. Schools expecting from 30 to 250

---

* Chapter I and Chapter II federal monies support remedial programs in English and mathematics as well as the English as a Second Language, College Bound, and College Discovery and Development programs in those schools with a specified percentage of students who either qualify for the free lunch program or are members of a family receiving Aid to Families with Dependent Children (A.F.D.C.). Such classes are supplementary and non credit-bearing, and must be taken in conjunction with another class in this subject (usually one funded with tax-levy dollars). P.S.E.N. funds support remedial English and mathematics programs in those schools with a specified percentage of students whose scores on citywide reading and mathematics tests are two or more years below grade level. These classes are credit-bearing and can be taken in lieu of a tax-levy class.

PREP-eligible students received an additional .35 units in tax-levy funds, while schools expecting more than 250 PREP-eligible students received an additional 1.47 units in tax-levy funds. If a school planned to divert more than one-third of its reimbursable allocation to the PREP program, it was eligible for supplementary P.S.E.N. funds so that appropriate services could be provided for other students in the school.

The spring program allocations increased by approximately 100 additional units (more than $3 million). The allocation for each high school was determined on the basis of the total number of PREP-eligible students in the school, rather than on increments of students as in the fall.

III. PROGRAM IMPLEMENTATION IN THE SCHOOLS

The PREP program was implemented in 91 of New York City's public high schools during the 1983-84 school year. Twenty three of the academic-comprehensive and nine of the vocational-technical schools were selected for site visits by members of the evaluation team. These schools are listed in Tables A-1 and A-2 of Appendix A to this report, along with data regarding school and program enrollments. The data gathered by the evaluation team during the site visits to these 32 schools are the basis for most of the information presented in this chapter.

PROGRAM STAFF

Supervising A.P.s/Program Coordinators

Guidelines issued by the Division of High Schools specified that the PREP program was to be supervised by an assistant principal (A.P.) unless the school principal obtained permission to make other arrangements from the PREP liaison in the borough superintendent's office. All or most of the schools complied with this guideline, although there was considerable variety in the type of A.P. assigned to the program and the number of other tasks in the school for which he or she was responsible. Furthermore, a number of the schools, especially those with a large number of students in the PREP program, also appointed a PREP "program coordinator" to carry out the day-to-day supervisory tasks associated with the program. This coordinator was usually a teacher who had considerable experience with basic skills programs. Coordinating duties involved such tasks as selecting teachers for PREP classes; determining which students would participate in the program and setting up their schedules; monitoring

students' attendance; discussing students' discipline or work problems with teachers or guidance counselors; attending monthly training sessions at the PREP central offices; organizing staff development training and program articulation at the school; and acting as liaison between the program and the community--a formidable load, especially since most coordinators usually had many other duties and were given only one free period a day (if that) to coordinate the PREP program.

Teachers, Educational Assistants, and Tutors

Program teachers were usually selected by the supervising A.P. or the program coordinator, although in some cases the school principal also became involved in the selection process. The majority of teachers were volunteers or "willing recruits" who had had experience in remediation and/or who expressed interest in working with PREP students. However, in about 10 percent of the cases in the sample, teachers were selected to teach classes solely on the basis of scheduling availability.

The number of teachers involved in the program in each school varied, depending on the number of students being served and the amount of "split programming".* In some cases, only one or two teachers participated in the program; in other cases, 20 or more teachers taught theme-based classes. At Port Richmond, teachers working in any funded program, including PREP, were automatically transferred back to tax-levy courses at the end of one term.

About one-third of the schools in the sample (including three of the official PREP B sites) indicated that paraprofessional educational

---

* Funded positions frequently are "split" such that a teacher may teach a combination of funded and tax-levy classes rather than five remedial classes.

assistants (E.A.s) were available to help the PREP teachers either inside or outside the classroom. In a few instances, more than one E.A. was available to assist PREP teachers.

During the spring, 1983 term, schools wishing to make the services of peer tutors or mentors available to their PREP students could apply for funding to the PREP central office. About one-third of the schools reported that they had received such funding which they used to provide tutorial services to PREP students. Mentors were generally eleventh or twelfth grade students who served as role models to PREP students in addition to helping them with their academic or personal problems.

Supportive Services Staff

Program guidelines specified that each official PREP B site was to have a full-time guidance counselor for their PREP students, and that enhanced supportive services were to be provided to PREP students by all of the schools participating in the program. However, the data gathered by the evaluation team indicate that the supportive services provided to PREP students varied markedly from school to school.

Six of the seven official PREP B sites included in the sample complied with the requirement to have a full-time guidance counselor for the PREP B students, while the seventh assigned its ninth grade counselor to work with the PREP B students. However, only one-quarter of the schools that were not centrally designated PREP B sites assigned a full-time guidance counselor to their PREP program. At the other schools, PREP students received supportive services from guidance counselors and grade advisors who also served other students.

Other types of supportive services were also made available to PREP students at some schools. For example, PREP students at Clara Barton participated daily in an "exploratory orientation" program designed to help them identify their strongest fields of career interest, and students at Erasmus Hall and Thomas Edison participated in the Operation Success program.* PREP students at Andrew Jackson were served by a four-person support team including the school psychologist, while Chinese and Russian students at Edward R. Murrow were given referrals to outside agencies serving these language groups.

The services of paraprofessional family workers were limited. Only about 20 percent of the schools in the sample specifically indicated that a family assistant helped monitor PREP students' attendance, or called or visited students' homes.

PREP THEMES

One of the unique aspects of Summer PREP 1984 and the 1983-84 school year PREP program was the use of themes to coordinate and structure program activities. Each school chose one or more themes for this purpose. The general types of themes selected by the schools are summarized in Table 1. (The specific themes selected by the 23 academic-comprehensive and nine vocational-technical schools in the sample are presented in

---

* Operation Success is a program funded by the New York State Education Department to provide support services to high school students who have dropped out or are at risk of doing so. It is administered by Federation Employment and Guidance Services (FEGS) in cooperation with the New York City Board of Education and the United Federation of Teachers, and provides such services as vocational assessment, skill training, and part-time job placement.

TABLE 1

Theme Categories and Percentage of Sample High Schools Selecting Each Theme

Theme Categories	Type of School: Academic-Comprehensive	Type of School: Vocational-Technical	Total
1. The World of Work (Careers in General)	15%	27%	18%
2. Specific Careers	15	45	24
3. Computers, High Technology, and the Future	22	18	21
4. Communications and the Arts	15	--	10
5. Taking Care of Yourself: Health, Nutrition, and Sports	11	--	8
6. My Community: New York City as a Resource	7	9	8
7. Other	15	--	10
Total	100	99[a]	99[a]
N	(27)	(11)	(38)

[a] Totals do not equal 100 percent because the percentages have been rounded off.

- Nearly two-thirds of the schools selected categories 1-3. Half of the academic-comprehensive and 92 percent of the vocational-technical schools chose such themes.
- Forty-five percent of the vocational-technical schools focused on specific careers related to their educational focus.

Appendix A as Table A-1 and Table A-2, respectively.)

As indicated in Table 1, themes relating to the world of work in general and to specific kinds of careers were the most frequently chosen themes -- particularly by vocational-technical schools. Themes relating to high technology or the future were the next most frequently chosen type, with about equal percentages of academic-comprehensive and vocational-technical schools choosing them. With one exception, the last four theme categories (communications and the arts; taking care of yourself: health, nutrition and sports; my community: New York City as a resource; and other) were chosen only by academic-comprehensive schools. (The exception was Chelsea High School and even then, the emphasis was on vocational opportunities in New York City.) The "other" category included opportunities for minorities (Andrew Jackson), the family (Julia Richman), study for the driver's permit examination (Lafayette), and cultural and experiential enrichment (Theodore Roosevelt).

Reasons for choosing particular themes varied. Almost all of the vocational-technical schools chose a theme that was also that school's special educational focus -- perhaps because the facilities and curriculum materials needed to carry out that theme were already available and the school may have found it very difficult to try to utilize a different theme.

Availability of facilities or equipment -- particularly of computers -- also influenced the choice of theme(s) by several academic-comprehensive schools in the sample. In a few cases, the PREP students themselves indicated a particular interest in a theme; in several other cases, PREP staff members chose a theme because they thought it would appeal to most of the PREP-eligible students. A few schools (Lafayette and William

Maxwell) had more than one theme.

Most of the vocational-technical schools and about one-half of the academic-comprehensive schools that had participated in the Summer 1983 PREP program used the same theme during the 1983-84 school year. One school, Park West, returned to its summer theme of "Space Exploration" after discovering that producing a newspaper as part of a communications theme was too demanding for most of its PREP students.

About half of the PREP staff members interviewed by members of the evaluation team said that a committee of teachers and other PREP personnel had chosen the theme; the remainder indicated that the school principal, supervising A.P., or PREP coordinator had chosen it.

STUDENT IDENTIFICATION AND SELECTION

Eligibility Criteria

Program guidelines had stipulated that eligibility for the PREP program was to be based on students' scores on citywide reading and mathematics tests. However, there were some variations in the way that these criteria were applied by the schools.

This variation was partially due to the number of youngsters entering ninth grade in fall, 1983 or spring, 1984 without citywide test scores, either because they were new to the N.Y.C. school system or had failed to take the tests for some other reason (they were absent the day the tests were given, etc.). The schools therefore had to use other criteria such as the students' junior high schools records or scores on school-administered tests to determine whether these students should be served by the PREP program or not.

Another difficulty was that certain school administrators believed that the citywide test results alone were not a reliable indicator of a student's basic skills ability. Some said they believed that the instruments used were not an accurate measure of the students' skills, pointing out that students' scores on the tests taken in April of the eighth grade and those taken in October of the ninth grade often differed markedly-- a difference the administrators believed to be more a function of the difference in level of difficulty of the tests used rather than of the amount of time elapsed between the end of the spring term and the beginning of the fall term.* Other administrators thought that a single test score was not an adequate measure of a student's abilities, and preferred to take other elements such as the student's grades or attendance record into account as well.

In a number of instances, students whose city-wide test scores were above eligibility limits were included in a school's PREP program. These "ineligible" students were included because school staff members believed they would benefit from receiving program services even though they were technically ineligible for them.

Student Selection and Enrollments

The number of students enrolled in the 1983-84 PREP program at individual schools varied considerably, depending on such factors as the type of school, the overall size of the school, the number of students who were

---

* The California Achievement Test (CAT), is used for eighth graders, while ninth graders take the Comprehensive Test of Basic Skills (C.T.B.S.). On average, ninth graders who took the citywide C.T.B.S. test in the fall scored about a half-year lower in grade equivalents than did the eighth graders who took the CAT in the spring.

eligible for PREP on the basis of their citywide test scores, the number of students included in the program on the basis of factors other than citywide test scores, and the ability of that particular school (in terms of financial resources, staff, and facilities) to provide PREP-related services for them.*

Enrollments at the 23 academic-comprehensive and nine vocational-technical schools in the sample are included in Tables 2 and 3, respectively. These data include total school enrollment and total ninth grade enrollment as well as the number and percentage of ninth-grade students enrolled in the school's PREP A or PREP B programs.**

---

* Initial estimates during spring, 1983 had placed the projected total at 7,000 students. However, the test scores received in July, 1983 indicated that about 8,500 students were eligible for the program. The addition of "over the counter" students (e.g., without test scores or without records from one of the "feeder" junior high schools) raised the total to about 12,000 eligible students.

** Most of the data on these tables were obtained from Period Attendance Reports (PAR) for February, 1984 (Period 6). However, in a few cases, schools failed to make separate tallies of PREP students for the PAR. In these instances, data collected by O.E.A./H.S.E.U. evaluators appear in parentheses on the tables. The totals provided by administrators or by evaluation team do not (in most cases) indicate whether the students were receiving single or double remediation (e.g, both reading and mathematics); whether any tenth graders or holdover ninth graders were included in the count; or how many students who were eligible for the program were not served because of funding or scheduling limitations at the school.

Note also that enrollments in the PREP program changed somewhat over time, as students "tested out" (e.g. scored above the eligibility grade level specified by program guidelines on the October, 1983 citywide tests), transferred to other programs or became long term absentees (L.T.A.s), while other students qualified for the program on the basis of their October, 1983 test scores or were added on the basis of staff recommendations. For example, administrators at Edward R. Murrow High School said that the fall, 1983 program had about 125 students, but that 70 of these students left the program at the end of the term, and 50 newly-identified students joined it for the spring term. Such changes among the students participating in the program undoubtedly had some negative impact on the overall effectiveness of the program.

TABLE 2

PREP Program Enrollments by the Percentage of the Ninth Grade Served At Sample Academic Comprehensive High Schools as of February, 1984

	ENROLLMENTS[a]							
	Total School	Ninth Grade	PREP A #	PREP A %	PREP B #	PREP B %	TOTAL PREP #	TOTAL PREP %
Less than 10 percent								
Midwood	2,352	389	19	5	--	--	19	5
Curtis	1,861	609	39	6	--	--	39	6
Adlai E. Stevenson*	4,323	1458	79	5	34	2	113	7
Walton	3,395	1116	88	8	--	--	88	8
Andrew Jackson	3,287	1156	91	8	--	--	91	8
Port Richmond	2,676	784	74	9	--	--	74	9
Between 10 and 19 percent								
Evander Childs	2,877	710	124	17	--	--	24	17
Theodore Roosevelt	3,665	1248	225	18	--	--	225	18
Between 20 and 29 percent								
Martin Van Buren	2,138	286	51	18	5	2	56	20
Newtown	3,944	862	157	18	22	3	179	21
Edward R. Murrow	2,822	542	89	16	35	6	124	22
Erusmus Hall	3,252	1167	258	22	--	--	258	22
James Monroe	2,153	629	110	17	36	6	146	23
Lafayette	2,391	503	120	24	--	--	120	24
Long Island City	2,396	389	97	25	--	--	97	25
Thomas Jefferson	2,024	747	220	29	--	--	220	29
Between 30 and 39 percent								
Grover Cleveland	2,963	582	141	24	26	4	167	30
Julia Richman	3,346	968	239	25	72	7	311	32
John Adams	3,085	785	236	30	24	3	260	33
William Taft	2,673	788	278	35	--	--	278	35
George Washington	3,141	1004	352	35	--	--	352	35
Park West*	2,829	788	170	22	131	17	301	39
Over 40 percent								
Sarah J. Hale*	1,996	732	294	40	80	11	374	51
TOTALS (MEANS)		18,242	3,551	19.5%	465	2.5%	4,016	22%

* Centrally-designated PREP B site

[a] Enrollment data are taken from Period Attendance Reports (Period 6, February, 1984).

- Ten of the sites reported PREP B students, although only three of these schools were official PREP B sites.
- Midwood High School had the smallest total percentage of PREP students relative to its ninth-grade population, while Sarah J. Hale had the largest total percentage of PREP students.

TABLE 3

PREP Program Enrollments by the Percentage of the Ninth Grade Served At Sample Vocational-Technical High Schools as of February, 1984

	ENROLLMENTS[a]							
	Total School	Ninth Grade	PREP A #	PREP A %	PREP B #	PREP B %	TOTAL PREP #	TOTAL PREP %
Less than 10 percent								
Eli Whitney*	1,855	613	--	--	58	9	58	9
Between 10 and 19 percent								
Thomas A. Edison*	1,830	344	--	--	54	16	54	16
Between 20 and 29 percent								
Fashion Industries	1,765	468	98	21	3	19	101	22
Clara Barton	2,316	602	133	22	--	--	133	22
Between 30 and 39 percent								
Alfred E. Smith*	1,279	497	60	12	99	20	159	32
William E. Grady	1,529	267	94	35	--	--	94	35
Aviation	2,146	508	176	35	--	--	176	35
Chelsea	883	174	58	33	10	6	68	39
Over 40 percent								
Grade H. Dodge*	1,822	520	149	29	83	16	232	45
TOTALS (MEANS)		3993	768	19%	307	8%	1075	27%

* Centrally-designated PREP B site

[a] Enrollment data are taken from Period Attendance Reports (Period 6, February, 1984).

- Two of the vocational-technical schools did not have a PREP A program.
- Nearly half of the schools were official PREP B sites.
- Eli Whitney had the smallest total percentage of PREP students relative to its ninth-grade population, while Grace H. Dodge had the largest total percentage of PREP students.

Among the academic-comprehensive schools, Midwood, a magnet school for medical careers, served the lowest percentage of ninth graders (five percent); the highest was 51 percent at Sarah J. Hale. The overall percentage of ninth graders served by PREP for the academic-comprehensive schools as a whole was 22 percent. Among the vocational-technical schools, the lowest percentage was nine percent at Eli Whitney; the highest percentage was 45 percent at Grade Dodge; the overall percentage was slightly under 27 percent.

The fact that the vocational-technical schools as a whole had a higher percentage of students enrolled in the 1983-84 PREP program than the academic-comprehensive schools was somewhat surprising in light of the fact that vocational-technical schools have a more specialized curriculum and can select the students who will be admitted to the school. However, it is possible that students with strong vocational-technical interests or aptitudes may have less developed reading skills than students attending academic-comprehensive schools, and therefore may have done less well on the citywide reading test. That some vocational-technical schools were officially designated PREP B sites drawing additional remedial students to the schools may also have affected these percentages.

In general the following observations can be made from Tables 2 and 3:

- All of the academic-comprehensive schools in the sample had a PREP A reading component. The smallest number of students served by this component in the sample was 19 at Midwood. The largest number of students served by the PREP A component in the sample academic-comprehensive schools was 352 at George Washington High School, one of the largest academic-comprehensive schools in the sample and one serving a large population of foreign students.

- Only seven of the nine vocational-technical schools in the sample had a PREP A reading component. The smallest number of students served by PREP A in a vocational-technical school was 58 (at

Chelsea -- the sample vocational-technical school with the smallest total ninth grade population); the largest number was 149 students at Grace H. Dodge.

- The overall percentage of PREP A students at both sample academic-comprehensive and vocational-technical schools was about 20 percent.

- Only three (13 percent) of the academic-comprehensive schools in the sample were official PREP B sites. However, seven other academic-comprehensive schools in the sample indicated that they had served at least some PREP B-eligible students, either separately or in conjunction with their PREP A students, making a total of 43 percent of these schools serving PREP B students. The largest number of PREP B students in this sample was 132 (at Park West High School-- a "medium-sized" high school which was the only official PREP B site in Manhattan). The smallest number of PREP B students at the academic-comprehensive schools in the sample was five at Martin Van Buren.

- The average percentage of PREP B students at sample academic-comprehensive schools was between two and three percent of the total ninth grade population. However, the average percentage of PREP B students at vocational-technical schools was nearly eight percent--a figure which is substantially higher than that found in academic-comprehensive schools. This higher percentage is primarily a product of the fact that more of these schools were serving PREP B students, and that proportionately more of these students were being served at each site.

- Over 40 percent of the schools in the sample were official PREP B sites, and two-thirds of them served at least some PREP B students. The smallest number of PREP B students served at the vocational-technical schools in the sample was three at the High School for Fashion Industries. The largest number of PREP B students was 99 at Alfred A. Smith-- an official PREP B site.

BLOCK PROGRAMMING

Prior to the PREP program, students requiring remediation in English or mathematics were eligible to receive services funded either by federal Chapter I or state P.S.E.N. monies. These classes served students in different grades, and were usually not integrated into any kind of overall program.

One of the purposes of the PREP program was to provide an integrated program of services to PREP students so that the instruction and services offered to the students in every area would reinforce and sustain the efforts made in other areas. Program guidelines had suggested that one way to achieve this integration was to "block program" the students; e.g, schedule the same students for a series of classes designed specifically for PREP students.* Three different types of block programs were suggested to principals and superintendents in a memorandum distributed shortly before the fall program began.

The degree of block programming of PREP students actually done by the schools during the 1983-84 school year varied considerably, as can be seen in Tables 4 and 5, which show the programming arrangement at the 23 academic-comprehensive and nine vocational-technical schools in the sample. The schools are grouped together on the basis of the degree of block programming used, ranging from least to most. Schools with variations on these arrangements are listed under "other." The following observations about these data can be made:

---

* A program in which an official class (homeroom) of PREP students was kept together for the entire day was called a "straight" or "fully" blocked program. A program in which an official class of PREP students was kept together for a common core of classes (e.g. English, math, and at least one other subject) and then mixed with other students in their remaining classes was called a "partial" block. A program in which students from several or more PREP official classes were intermixed for all of their content area or basic skills classes was called a "mixed" block. Partial and mixed-block programs are also sometimes referred to as "modified block" programs.

TABLE 4

Programming at Sample Academic-Comprehensive Schools

Degree of Blocking	Number of Students A	B	School	Programming
No block or official class only	19	--	Midwood	"Some" PREP-eligible students in same Chapter I reading lab and modified English class. Most PREP students in modified social studies class.
	(51)	(5)	Martin Van Buren	Most PREP students in Chapter I math lab and Chapter I reading lab plus tax-levy English, but "not necessarily" blocked that way.
	89	35	Edward R. Murrow	No block programming (to avoid isolation). Students requiring remediation in English or math placed only in "official" PREP class (10-week cycles).
	258	--	Erasmus Hall	All PREP students in P.S.E.N. English; some in Chapter I English. Seven Freshman Institute official classes for PREP students only.
Blocked for PREP English only	278	--	William Howard Taft	PREP students blocked in English, not math.
Blocked for English and Mathematics	157	22	Newtown	PREP students blocked in official class only to avoid stigmatizing them. However, "some" theme integration in math and english.
	97	--	Long Island City	Two mathematics classes and three English/writing classes for PREP students only.
	(120)	--	Lafayette	PREP students blocked for English and tax-levy math, plus some students in Chapter I or P.S.E.N. math (some heldover ninth graders).
	239	72	Julia Richman	PREP students blocked for English and math; "no funds" for science or social studies.
	352	--	George Washington	All PREP students in separate English class (English-speaking in P.S.E.N., Spanish-speaking in Chapter I) and math classes.

continued

BEST COPY AVAILABLE

TABLE 4 (continued)

Degree of Blocking	Number of Students A	B	School	Programming
Blocked for 4-5 "major" subjects	39	--	Curtis	Blocked for "major classes." Some in P.S.E.N. classes. Mastery Learning techniques used.
	74	--	Port Richmond	Blocked for English, language arts, science, social studies. Mastery Learning techniques used.
	110	36	James Monroe	Blocked for English, reading, math, science, and social studies. Many in Chapter I labs. Three PREP A groups; one PREP B group.
	141	26	Grover Cleveland	Blocked for English, reading, math, and science. Special reading class and homeroom for PREP B students.
	220	--	Thomas Jefferson	Blocked for English, math, science, social studies, and gym.
	225	--	Theodore Roosevelt	"Mini-blocked" for major subjects but not for hands-on electives. Composition of PREP classes mixed to avoid behavior problems.
	88	--	Walton	Blocked for reading, writing, math, and "theme classes."
	236	24	John Adams	Blocked for reading, math, "hands-on" subjects, official.
Other	91	--	Andrew Jackson	Four groups of students blocked all day except for gym. English/history and math/science scheduled "back to back".
	124	--	Evander Childs	Blocked for seventh-period gym. Eighth period blocked for one of three mini-school courses: typing, shop, or health. Rotate every six weeks.
	79	34	Adlai E. Stevenson*	All students in school part of some type of "thematic" block. All PREP students in Chapter I English and math plus tax-levy English. Some Chapter I classes exclusively for PREP.
	294	80	Sarah J. Hale*	PREP B students blocked but choose electives.
	170	131	Park West*	PREP A students blocked but with choice of hands-on electives (nautical arts or experimental foods.) PREP B students blocked for all subjects, including "commercial art" (shop).

*Officially designated PREP B sites.

Note: Numbers in parenthesis were obtained from information gathered by the evaluation team rather than from the PAR.

- Students were block programmed for four or five major subjects in over 30 percent of the sample schools.

BEST COPY AVAILABLE

TABLE 5

Programming at Sample Vocational-Technical Schools

Degree of Blocking	Number of Students A	B	School	Programming
No block	58	10	Chelsea	Most PREP students take Chapter I English, some take Chapter I math. Distributed throughout other classes. All ninth graders get theme in English class.
--	54		Thomas Edison*	Discontinued block programming; now students randomly assigned but must take Chapter I or P.S.E.N. skills classes.
98	3		H.S. of Fashion Industries	No block programming. PREP and Chapter I students "often the same."
Blocked in English and Mathematics	176	--	Aviation	Seven "PREP English" and seven "PREP math" classes. Most take nine-period days.
Blocked in mini-school classes	133	--	Clara Barton	Some PREP students in P.S.E.N. classes. Mini-schools in health careers.
Fully Blocked	--	58	Eli Whitney*	Two groups of PREP B students blocked for entire day.
94	--		William E. Grady	Whole day blocked, but "similar to Chapter I." (89 English, 100 math students) Most in vocational rather than technical areas.
B blocked, A not blocked	60	99	Alfred E. Smith*	PREP A students blocked for official class only. PREP B students blocked when schedule permits.
149	83		Grace H. Dodge*	PREP A students blocked for official class only. PREP B students located in one section of building and blocked for all classes except music, gym, and lunch. Composition of classes mixed.

* Officially-designated PREP B sites.

• Programming at sample schools ranged from no block programming at 30 percent of the sample schools to fully blocked programs at one-fourth of the sample vocational-technical schools.

- About 25 percent of the academic-comprehensive schools provided remediation to their PREP students only via Chapter I or P.S.E.N.-funded classes, and limited the "blocking" of these students to an official class. Another 25 percent provided "PREP only" classes in English and/or mathematics; one-quarter more blocked these students for one or more content area classes as well as basic skills classes (a "partial" block), while the remaining 25 percent used other forms of blocking. These percentages held roughly true for the vocational-technical schools in the sample as well.

- The size of the population being served did not per se seem to be the deciding factor in the types of programming arrangements made. However, the schools with relatively small populations of PREP students did tend to do less block programming than those schools with relatively large populations of PREP students. This reduced amount of block programming probably has to do with the fact that it takes time, effort, and money to set up a special program for students. However, a number of the schools which did not set up "PREP only" classes for basic skills or content area instruction did provide other services to their PREP students, such as enhanced guidance services, enrichment activities, and peer tutoring.

- In addition to the size of the population being served, other factors affected the programming arrangements made. One of these factors was the attitude of administrators toward special programs for remedial students. While the majority of administrators interviewed supported the idea of an integrated program which included a number of "PREP classes", others clearly opposed the notion of separating these students from their ninth-grade peers. They felt that this separation had a "stigmatizing" effect, and that these students were better served by being "mainstreamed" with other ninth graders whenever possible. This latter philosophy was explicitly expressed by administrators at Edward R. Murrow and Newtown High Schools, both of which had relatively large populations of PREP-eligible students but did not block program these students. However, both schools did provide other services to their PREP students.

- Already existing special programs or scheduling arrangements also affected the degree of block programming done for PREP students. At Erasmus Hall High School, for example, all ninth grade students were part of a Freshman Institute designed to ease the transition of these students into high school. Although a number of official classes were set aside for PREP students at this school, remediation in English was provided primarily through Chapter I and P.S.E.N.

classes. At Adlai E. Stevenson High School -- which had the smallest ratio of PREP students to its ninth grade -- all students in the school participated in some type of thematic block, and remediation was provided primarily through Chapter I classes, with a few of these classes reserved especially for PREP students. In each case, the PREP students did not have specially blocked basic skills classes, but received services through other means.

- Vocational-technical schools have a slightly different situation than academic-comprehensive schools in the sense that these schools have a specialized educational focus; students must apply to attend a particular school; and programming frequently includes a block of "shop" classes in addition to the students' academic subjects. Students' schedules at these schools tend to be very crowded, and it is sometimes difficult to fit in special or remedial classes. However, these factors per se did not seem to have much impact on the degree of block programming for PREP students these schools. The variations in the degree of block programming at vocational-technical schools in the sample were roughly equivalent to those found in academic-comprehensive schools.

- The most extensive block programming tended to occur at official PREP B sites. The extensive block programming of PREP B students was the result of several factors. One of the most important was the fact that PREP B students are, by definition, very poor readers who have difficulty keeping up with and competing with their ninth grade peers. Placing them in special classes geared to their reading level and needs meant that they could be given more directed and effective help with reading, and reduced the possibility of their becoming frustrated and discouraged with their studies. An administrator at one vocational-technical school said, however, that the course requirements were simply too difficult for the PREP B students no matter how much they were "watered down".

  Another factor affecting the extent of block progamming was that many PREP B students were overage for their grade, and had a history of attendance and behavior problems. Keeping them separate from other students in the school may have made it easier to control these behavior and attendance problems. In fact, some schools deliberately changed the mixture of PREP B students from class to class to try to prevent gangs or cliques of troublemakers from forming. In fairness, however, many of these students were transfers from other schools who may have been somewhat uneasy in a strange school setting, who may have had to travel a considerable distance to get to their assigned school, and who may not even have known that he or she was being assigned to a vocational-technical school. A few of the students mentioned to members of the evaluation team that they were not interested in the subject mater offered by the school, and were not happy with their assignment to the school.

THEME IMPLEMENTATION IN INSTRUCTION

One of the purposes of block programming was to simplify the integration of thematic material into classroom instruction. PREP teachers had been provided with a manual prepared by the Summer 1983 PREP staff which gave many examples of how this could be done. They had also attended workshops on theme implementation. However, only limited information on this aspect of the 1983-84 PREP program was provided by the PREP teachers interviewed by the O.E.A./H.S.E.U. team.

For example, a teacher at one of the academic-comprehensive schools which blocked the PREP students in both mathematics and English said that their theme of small business was "well integrated" into reading classes, but less well implemented in the students' mathematics classes. An instructor at another academic-comprehensive school commented that teachers had found it difficult to integrate their computer theme into many classes, while another academic-comprehensive school had added two additional themes to their program after discovering that there was "not enough material available" on their health and fitness theme to "keep classes going."

Staff members at vocational-technical schools were somewhat more outspoken on the subject. While one of the teachers at Clara Barton said that they had found it "easy" to integrate thematic materials into classroom instruction (perhaps because they were using a mini-school format), an instructor at one of the smallest schools said that they found their theme somewhat "forced and artificial, and difficult to maintain across several courses", although it had helped coordinate teachers' classroom efforts. An instructor at a vocational-technical school in which PREP students were

block programmed in both mathematics and English said that their program was "working," but that this was because of the "teaching techniques" being used rather than because of the use of a theme, which he described as "difficult and occasionally impossible" to implement.

ENRICHMENT ACTIVITIES

In addition to introducing thematic material into instruction, the schools were urged to provide theme-based enrichment activities for their PREP students, and supplemental funding was made available for this purpose. Schools in the sample that provided information on such enrichment activities are listed in Table 6. Academic-comprehensive and vocational-technical schools are listed according to the percentage of PREP students served. As is evident from this table, there was little relationship between the size of the program and whether block programming was utilized or not.

For example, although PREP administrators at Edward R. Murrow High School elected not to block program their PREP students, they supported the PREP theme of communications by having the PREP students produce a newsletter. The PREP staff at Newtown supported the theme of small business by arranging trips to many different kinds of small businesses; having speakers from small businesses come to school to talk to the PREP students; and having the PREP students participate in such unique activities as making and selling jelly apples, and running a contest to select the name of a restaurant. At Theodore Roosevelt High School, the two themes of career exploration, and cultural and experiential enrichment, lent themselves to such enrichment activities as trips to worksites; programs with outside agencies such as the Police Department; and the

TABLE 6

Enrichment Activities Reported by Sample Academic-Comprehensive and Vocational-Technical Schools

Schools	PREP A Enrollment	PREP B Enrollment	% of 9th Grade	Block Programmed For:	Themes(s)	Enrichment Activities
Walton	88	--	8%	English, math themes	The Shining Apple	PREP newsletter
Newtown	157	22	21	English, math	Small business	Trips to small businesses; in-school speakers; special projects
T. Roosevelt	225	---	18	Four-five subjects	Career exploration cultural/experiential enrichment	Programs with outside agencies (Police Dept., etc.); Trips to circus; cultural and work sites, Newsletter
E.R. Murrow	89	35	22	Official class only	Communication	PREP newsletter
Erasmus Hall	258	--	22	Official class only	The Arts; The Future	Prep newsletter; Trips; Operation Success
T. Jefferson	220	--	29	Four-five subjects	Career awareness	Many activities
G. Cleveland	141	26	30	English, math, science	High Technology	Educational/cultural/career trips about themes
W. H. Taft	278	--	35	English only	Communications	Trips
S. J. Hale*	274	80	51	B blocked	City Government	Twice monthly trips
Park West*	170	131	39		Space Exploration	Trips
E. Whitney	--	58	9%	Fully blocked	Bridges to Industry	Bi-weekly field trips
T. Edison*	--	54	16	Official class only	Graphics arts; computers	Art Theatre project; Operation Success
Aviation	176	--	21	English, math	Careers in aviation	Trips to airports and aviation museums
C. Barton	133	--	22	Mini-School	Health Careers	PREP newsletter; orientation to
W. Grady	94	--	35	Fully blocked	Broadcasting; computers	Trips
Chelsea	58	10	39	Official class only	New York City	Newsletter planned

* The primary enrichment activities were newsletters, trips, and Operation Success.

production of a newsletter by PREP students. Eli Whitney's theme of bridges to industry was enlivened by field trips to such industries as the stock exchange, the transit authority, and so on.

ATTENDANCE PROCEDURES

Since so many students in the PREP program had poor or erratic attendance histories, careful attention was given to PREP attendance by program staff. In practically every instance in the sample, attendance was monitored daily (usually in official class), and letters were sent home or calls made by paraprofessional family assistants or by one of the guidance counselors. The number of PREP students being served by a school did not seem to have any particular effect on the monitoring and follow-up techniques used, although the schools with sizable PREP B populations seemed to make extra efforts to monitor these students' attendance carefully. At Sarah J. Hale, for example, the program head and secretary checked PREP attendance daily, and distributed transportation books once a month rather than the usual once a term in order to keep the students in closer contact with the school. At a vocational-technical school with a large PREP B population, the program coordinator reviewed students' attendance records once a week and requested meetings with tneir parents if necessary; while at one of the vocational-technical schools with only a PREP B population, students older than 17 who were absent for more than a month were dismissed from the program.

A number of schools in the sample indicated that they had attendance incentive programs and that awards or prizes such as tickets to the movies

or to the circus were given to students with excellent attendance records. One school, which had about 180 PREP students including some PREP B students, had an "Adopt-a-PREP-student" program in which teachers were assigned to take a special interest in students with attendance problems.

STAFF DEVELOPMENT AND PROGRAM ARTICULATION

PREP teachers, program coordinators, and supervising A.P.s received training in PREP objectives, techniques for theme infusion, and other related topics at workshops held before the beginning of the fall, 1983, and spring, 1984 terms, and at monthly meetings held at the PREP central program office. In addition, the schools were urged to provide in-service training for PREP staff throughout the school year.

The degree and types of staff development training that occurred in the schools took several forms. In about one-third of the cases in the sample, the program coordinator either set up formal meetings with groups of teachers to discuss such topics as effective methods of theme-based remediation, or else met with individual teachers to discuss particular problems they were encountering. In another one-third of the cases, staff training was under the direction of the English or mathematics department chairperson and sometimes included articulation with Chapter I/P.S.E.N.-funded or tax-levy teachers. In the other instances, teachers met together on their own (sometimes before or after school or during their lunch break); coordinators of the math and reading components met together and/or with PREP teachers, guidance counselors, and other administrators; or

meetings were held by the supervising A.P. A number of the coordinators mentioned that they attended the monthly meetings at the PREP central offices, and that most of the PREP teachers had attended the intersession training workshops. Several teachers and administrators (particularly at the schools with the largest PREP programs) commented that split teaching positions made joint planning difficult, and administrators at only two schools (both of them vocational-technical schools) said that a common planning period for teachers had been set up.

One school reported receiving a $1,500 grant from the PREP office to underwrite 19 staff development sessions; another said that only "some" of the PREP teachers were receiving staff development training--presumably those who had not had much experience in remediation. Several coordinators complained that they did not have enough free time to set up more formal meetings with teachers, and the coordinator at a school with one of the largest PREP populations said that he had to hold three planning meetings a week in order to accommodate all of the teachers in the program. Several staff members also indicated that a Chapter I staff development specialist had either delivered materials or helped teachers with theme-integration techniques. A few teachers said that they had developed their own materials and techniques for use in PREP classes.

Articulation between PREP staff and other staff members in the school was limited. Most of it occurred on an individual and informal basis between PREP, Chapter I/P.S.E.N., and tax-levy teachers who were dealing with the same youngsters. There were also some departmental meetings in which cooperation between the teachers in the various programs was urged. However, both types of efforts seemed to be limited and infrequent. The

coordinator at an academic-comprehensive school with over 300 PREP students said that the program was "so big that it's hard to meet within the program, let alone with other teachers," while the coordinator at a vocational-technical school with a large PREP B population reported that staff members found these students "disruptive" and were resistant to efforts at articulation.

IV. STAFF AND STUDENT PERCEPTIONS OF THE PREP PROGRAM

STAFF PERCEPTIONS

School staff members were asked to describe their perceptions of the purposes of the PREP program; the program's most important components and most important problems; the kinds of improvements in the program that they would like to see in the future; and what was likely to happen to these PREP students next year. Staff gave a wide variety of open-ended responses to these questions which are summarized below.

Program Purpose

Staff responses to the question of program purpose bore a close relationship to the program purposes cited in Chapter I of this report. More than one third of the respondents cited improving students' basic skills as the main purpose of the PREP program with about one quarter of this group specifically saying that they hoped to be able to "mainstream" the students during the following year, and an equal number saying they wanted to bring them up to or near grade level. About one-fourth of the respondents said that the goal of PREP was to improve student attendance and retention rates, and nearly an equal number said that improving students' attitude toward school was a major aim of the program. (Respondents in both of these groups mentioned both academic success and interesting activities as being key in meeting these goals). A few school staff members also mentioned other program aims and aspects, such as providing students with small group and individualized instruction, preparing them for the "rigors" of high school, and introducing them to careers.

Most Important Program Elements

The "people part" of the PREP program was clearly seen as its most important element by the majority of staff responding to this question. The academic and emotional support provided to these students by an experienced, well-trained, and dedicated staff was cited by nearly 70 percent of these PREP staffers as being the aspect of the program that was most important to its success. The necessity for enough funding to hire the staff was cited by another eight percent of the respondents, while ten percent stressed the importance of good planning and administration to support these efforts. Roughly eight percent of the respondents stressed the importance of high-interest and innovative materials, curriculum, and enrichment activities such as trips and "extra outside classes"; and about six percent mentioned other factors such as good communication with the parents of students.

Major Problems

About one-half of the responses to the question about the program's major problems returned to the necessity of adequate staffing, and the difficulties and frustration resulting from the fact that the PREP staff members at many schools did not or had not had adequate time for planning or coordinating the program. Another one-fifth of the respondents mentioned other administrative difficulties such as inadequate student identification procedures (particularly testing procedures) and program guidelines that were unclear, too restrictive (in terms of the types of students they could serve, or the way that funds could be used), or unrealistic in terms of the criteria for success, particularly in the case of PREP B students. Other problems included the program's lack of identity vis a vis other programs already in place in the school; the lack of lead time in program start

up and the apparent lack of planning in terms of what would happen to the PREP students the following year; lack of leadership on the part of the Division of High Schools or the PREP central office; and the lack of adequate staff development and training.

A relatively small number of respondents mentioned various types of programming difficulties that they had encountered. For example, staff members at a school with a small number of PREP-eligible students said that they had found it difficult to design a program for such a small number, while a staff member at a vocational-technical school commented that the schedule was so crowded it was difficult to "fit in" remedial classes. About five percent of the respondents mentioned difficulties in incorporating the PREP theme into content area material, and a slightly smaller percentage of respondents said that they felt that block programming isolated and stigmatized students and could sometimes keep students from a teacher who might be more approriate for them.

Finally, about 15 percent of the staff members expressed some negative feelings about the students being served by the PREP program. Several of them mentioned the discipline, attendance, and attitude problems of some students--particularly the older students--and said that these problems, plus the students' severe academic limitations, caused serious teacher frustation, low morale, and "burnout".

Suggested Improvements

A variety of suggestions about ways in which the PREP program could be improved for following years were made. The most common recommendation was increased funding for more staff, including teachers, paraprofessionals, and mentors, guidance counselors, and a liaison person on the Division of High

Schools staff to work on a one-to-one basis with school staff. About 15 percent of the respondents recommended that the staff be given more training in such areas as theme implementation, work with low achievers, and crisis intervention; that they be given more time for the planning and coordination of their program (which could include active cooperation with other schools with PREP programs); and that more funding be made available for equipment used in hands-on activities, for enrichment activities such as trips, and for curriculum development.

Eight percent said that better program guidelines and directives would be helpful, and another eight percent said that steps (such as complete records provided by feeder junior high schools, or relying on a battery of tests rather than just citywide test results to more accurately pinpoint student problems) should be taken to more precisely identify those students who should be served by the PREP program. A few respondents said that classes should be smaller so that more attention could be given to individual students. Other responses included a recommendation that the PREP students be kept away from other students in the school, and questions about what teachers were to do with the PREP students next year.

Future of Current Students

Last, school staff were asked what would happen to the 1983-84 PREP students during the 1984-85 school year if there was no PREP program for tenth graders. Most of the respondents stated strongly that they hoped there was one, and a number of these said that they would rather follow their present PREP students through tenth grade rather than having a new ninth grade program. Possibilities mentioned if there was no tenth grade program included mainstreaming some of the students (27 percent); putting

the "less able" students in Chapter I/P.S.E.N.-funded classes or other special programs such as General Equivalency Diploma (G.E.D.) training; continuing to provide extra supportive services for these students as long as possible; and having some students repeat the ninth grade. About 10 percent of the respondents said that they frankly did not know whether to pass the students or have them repeat the ninth grade; and a small number stated flatly that some students would drop out even if they got credit for the year. One respondent suggested a PREP C program for students who passed their subjects but remained deficient in English or math.

STUDENT PERCEPTIONS

In addition to interviewing PREP staff, the evaluation team administered a short questionnaire to 75 PREP students -- 64 from academic-comprehensive schools and 11 from vocational-technical high schools. The questionnaire was designed to elicit students' perceptions of whether the PREP program had helped them or not, and in which areas they were doing better.

The overwhelming majority of these students indicated that the PREP program had a postive impact on their academic accomplishments, grades, and overall participation in school. Eighty percent of the interviewees said they had learned more this year than last, with 62 percent of these indicating that they had learned "a lot more." Nearly two-thirds of these PREP students reported that they participated in class more than last year, and 57 percent described their grades as "better" or "much better."

On the negative side, however, eight percent of the students believed that they were learning "less" or "a lot less"; nearly 25 percent said they had participated less in class this year than last year; and 17 percent perceived their grades as being worse than last year. Attitudes toward

attendance were somewhat more balanced. Forty-four percent of the students said they were going to school "more often" (seven percent) or "a lot more often" (37 percent); 40 percent said that their attendance was about the same; and 16 percent said they had been going "less often".

In terms of basic skills, students reported having greater difficulty with math than with reading. Working from a list of things with which they might have had difficulty and allowed to check off as many as they wished, students cited math classes (45 percent) far more often than they did reading classes (six percent); other classes fell in between, with 30 percent identifying them as problematic. Although an equal number thought work in math was either easier (43 percent) or harder (44 percent) this year, a larger percentage thought that work in reading this year was easier rather than harder than last year (44 percent to 27 percent). Overall, however, the students interviewed perceived the PREP program as beneficial to their success in school.

V. STUDENT OUTCOME DATA

Attendance and academic achievement are the quantitative outcomes used to measure the success of the PREP program. Analyses of PREP students' attendance and their performance on standardized reading and mathematics tests, along with data for comparison groups, are discussed in this chapter.

ATTENDANCE

Fall and spring term attendance are presented in Table 7 for PREP students and for a comparison group of non-PREP ninth graders (All non-PREP ninth graders except those attending alternative or specialized high schools). As indicated in Table 7, students in the PREP A reading component attended school about 75 percent of the time during both the fall and the spring terms -- a rate which was slightly higher than that of ninth graders not participating in the program. Attendance of students in the PREP B component was somewhat lower, averaging about 62 percent during the fall term but increasing to 66 percent during the spring term. The lower overall rate of attendance for the PREP B students is not surprising considering their usual history of attendance problems; however, the improved attendance rate during the spring term may reflect the increasing effectiveness of the PREP program for these students.

ELIGIBILITY

Eligibility for the PREP program during the 1983-84 school year was based primarily on students' scores in the citywide reading and mathematics tests. Program guidelines stipulated that any ninth grader scoring below the 6.7 grade level on the mathematics test was eligible for mathematics remediation in the PREP program; any ninth grader scoring between the 5.1

TABLE 7

Comparison of the Average 1983-84 Attendance of PREP and Non-PREP Students from All High Schools

Group	Attendance by Term (in Percent)[a] Fall, 1983	Spring, 1984
Participants:		
PREP A	75.2%	74.6%
PREP B	61.9	66.1
Comparison Group:		
Non-PREP Ninth Grade[b]	74.1	73.6

[a] Attendance data were compiled by the PREP Program Director.

[b] Attendance data for non-PREP ninth graders exclude data from the specialized and alternative high schools.

- PREP A students attended school about three-fourths of the time, a slightly higher percentage than non-PREP ninth graders.
- PREP B students attended school just under two-thirds of the time.

and 7.1 grade levels on the reading test was eligible for the PREP A program; and any ninth grader scoring at or below the 5.1 grade level in the reading test was eligible for the PREP B reading component.*

Citywide tests administered in May, 1983, when students were in the eighth grade, were used to establish eligibility for PREP in fall, 1983; the October, 1984 tests established students' eligibility for the spring, 1984 PREP program. Analyses of the scores of students taking the citywide tests identified 4,441 students who met the criteria for PREP math services; 2,455 who met the criteria for PREP A reading services; and 2,100 who met the criteria for PREP B reading services. Based on their test scores, some of these students were eligible for remediation in one area only ("single" remediation), while others were eligible for remediation in <u>both</u> reading and

---

* Scores on the citywide mathematics and reading tests are actually calculated in normal curve equivalents (N.C.E.s) which can then be converted into grade equivalents (G.E.s). N.C.E. scores are similar to percentile ranks but, unlike percentile ranks, are based on an equal-interval scale. Normal curve equivalent scores are based on a scale ranging from 1 to 99 with a mean of 50 and a standard deviation of approximately 21. Because N.C.E. scores are equally spaced apart, arithmetic and statistical calculations such as averages are meaningful; in addition, comparisons of N.C.E. scores may be made across different achievement tests.

A grade equivalent indicates the grade placement of students (year and month) for whom a given score is typical. Grade equivalents are not directly comparable across different tests. Moreover, because grade equivalents are not spaced equally apart, they cannot be used in arithmetic or statistical calculations. Most important, it is often assumed that a grade equivalent represents the level of work a student is capable of doing. For example, it may be assumed that a ninth grade student who obtains a grade equivalent of 11.6 belongs in the eleventh grade. This is <u>not</u> the case; a grade equivalent of 11.6 simply indicates that the student scored as well as a typical eleventh grader would have scored on the ninth-grade level test. This may indicate an above-average level of achievement, but does not indicate that the ninth grader is ready for eleventh-grade level work.

mathematics ("double" remediation). In addition, 512 students were considered eligible to receive remediation in reading and/or mathematics on the basis of staff recommendations even though these students' scores on the citywide tests were above the levels specified by program guidelines.

Students participating in the 1983-84 PREP program are grouped into categories on the basis of their need for single or double remediation in Table 8 which also includes the percentage of students eligible for each type of service and average pretest scores in mathematics and reading for the students in each group. The following observations can be made about the data presented in this table.

- Twenty percent of the students required remediation in mathematics only, and a slightly larger percentage required remediation in PREP A reading only. Both groups were about three years below grade level in the skill area in which they were deficient, but less than one year below grade level in the other basic skill area. This could suggest that both groups had good potential for mainstreaming if their deficiency in the one skill area could be corrected.

- A very small percentage of students required remediation in B reading only. Their mean reading score was about five years below grade level; their mean score on the mathematics test was considerably higher. The discrepancy in the extent of students' skill deficiencies in math and reading is curious. However, it is dangerous to speculate about the meaning of this discrepancy since grade equivalent scores are not comparable across tests, particularly in different content areas.

- The largest percentage of students served by the program required remediation in both mathematics and A reading. Interestingly, their mean scores in both skills areas were the same; that is, they were three years below grade level in both areas.

- Students requiring remediation in both mathematics and B reading had the lowest overall scores in both areas; that is, they were an average of five years below grade level in reading, and nearly four years below grade level in mathematics. It could be anticipated that this group would require the most intensive remedial and supportive services efforts.

- Students who were ineligible for PREP on the basis of their citywide test scores were about one-half year below grade level in both reading and math. These students were apparently "borderline" students who were being included in the program because of behavior or attendance problems.

TABLE 8

1983-84 PREP Students from all High Schools
Grouped by Eligibility (in Grade Equivalents)

Group	Pretest Score Eligibility[a]	Percent	Math Pretest Score[b]	Reading Pretest Score[b]
Single Remediation				
1	Math only	20	6.0[d]	8.3
2	A reading only	22	8.1	6.2[c]
3	B reading only	4	7.7	4.1[c]
Double Remediation				
4	Math and A reading	27	6.0[d]	6.0[c]
5	Math and B reading	18	5.2[d]	4.0[c]
Ineligible on the Basis of Test Scores				
6		10	8.5	8.6
TOTAL		101[e]	6.4	6.2

[a] PREP B eligibility was below 5.1 in grade equivalents in reading. PREP A eligibility was between 5.1 and 7.1 in grade equivalents in reading. Eligibility for mathematics remediation was below 6.7 in grade equivalents.

[b] Normal Curve Equivalent (N.C.E.) means were computed and then converted to grade equivalents.

[c] Students who were eligible based on reading scores.

[d] Students who were eligible based on mathematic scores.

[e] Totals do not equal 100 percent because the percentages have been rounded off.

- Forty-five percent of the students in the program met both reading and math eligibility criteria.
- Ten percent of the students served were ineligible for PREP based on pretest scores but were recommended for the program by teachers.

ACADEMIC ACHIEVEMENT FINDINGS

Reading and Mathematics Gains

Scores on the New York City Reading and Mathematics tests of October, 1983 (pretest) and May, 1984 (posttest) were used to measure the academic achievement of PREP students during the 1983-84 school year. Only students with both pretest and posttest scores were included in the analysis. This included 2,662 (60 percent) of the 4,441 math-eligible students; 1,987 (81 percent) of the 2,455 PREP A-eligible students; 915 (44 percent) of the 2,100 PREP B-eligible students; and 397 (77 percent) of the students who were served even though they were ineligible on the basis of their scores on the citywide test. Overall reading and math achievement gains are reported in Table 9 for these four groups of students. Information presented in this table includes both N.C.E. and grade equivalent mean scores and gains for both reading and mathematics. It should be noted that the expected growth for remedial students taking norm-referenced pre- and posttests is 0.1 grade equivalents for each month of instruction in the program, or 0.6 grade equivalents for six months in a program such as the PREP program.

As indicated in Table 9, the three groups of students receiving remediation in reading posted an overall average gain of 0.8 grade equivalents, with the largest gain (one full year in grade equivalents) made by the students in the PREP B reading component. The PREP A group did gain one month for every month of instruction, while the "ineligible" group gained at a slightly slower rate in reading. It is likely that the gains made by both the PREP B and PREP A students can be attributed to the "treatment" of the PREP program, although in the case of the PREP B students, allowance must be made for the statistical

TABLE 9

Overall 1983-84 Mathematics and Reading Score Mean Gains in Normal Curve Equivalents and Grade Equivalents for PREP Students from All High Schools Grouped by Eligibility

	READING							MATH						
		N.C.E. Mean			G.E.[b] Mean				N.C.E. Mean			G.E. Mean		
Eligibility[a]	N	Pre-Test	Post-Test	Gain	Pre-Test	Post-Test	Gain	N	Pre-Test	Post-Test	Gain	Pre-Test	Post-Test	Gain
A Reading	1987	33.7	34.3	0.6	6.0	6.6	0.6	--	--	--	--	--	--	--
B Reading	915	18.7	22.9	4.2	4.0	5.0	1.0	--	--	--	--	--	--	--
Math	--	--	--	--	--	--	--	2662	25.8	29.9	4.1	5.9	6.5	0.6
Ineligible, but Served[c]	397	48.7	46.7	-2.0	8.6	9.1	0.5	395	45.5	47.0	1.5	8.5	8.9	0.4
TOTAL	3299	31.4	32.6	1.2	5.6	6.4	0.8	3057	28.3	32.1	3.8	6.1	6.7	0.6

[a]PREP B eligibility was below 5.1 in grade equivalents on the citywide reading test; PREP A eligibility was between 5.1 and 7.1 in grade equivalents in reading, mathematics eligibility was below 6.7 in grade equivalents on the citywide mathematics test.

[b]Normal Curve Equivalent (N.C.E.) means were computed and then converted to grade equivalents (G.E.).

[c]These students were ineligible on the basis of test criteria but were placed in PREP as a result of staff recommendations.

- PREP A students made reading gains of six months.
- PREP B students made reading gains of one year.
- PREP students receiving remediation in mathematics made gains of six months.
- Students who were ineligible for PREP services, but placed in PREP due to teachers' recommendations made gains of five months in reading and four months in math.

phenomenon known as "regression to the mean," in which students whose scores on a test are either very high or very low tend to move toward the middle level on a retest.

The two groups receiving remediation in mathematics posted an average overall gain of 0.6 grade equivalents, with the largest gain exhibited by those students who had qualified for this remediation on the basis of their pretest score.

Reading Gains for Students Receiving Single or Double Remediation

In order to determine the effect (if any) that single or double remediation had on students' gains in reading and mathematics, students with complete pre- and posttest scores were further subdivided into groups on the basis of the amount of remediation received. Gains for five different categories of students receiving remediaiton in reading are presented in Table 10.

As shown in Table 10, Groups 1 and 3 received remediation in reading only, while Groups 2 and 4 received remediation in both reading and mathematics. The following observations can be made about the information presented in this table.

- In terms of grade equivalents, the two groups receiving remediation only in reading made greater gains than the two groups receiving remediation in mathematics as well. This might suggest that students receiving single remediation "do better" than students receiving double remediation. It could also suggest that students requiring double remediation might be better served in an intensive program that did not include students receiving single remediation.
- In terms of gains in N.C.E. units, the two PREP B groups made larger gains than the two PREP A groups. Futhermore, the PREP B students had significantly lower pre- and posttest N.C.E. scores than the PREP A or "ineligible" students. While these gains may be partially a function of the statistical phenomenon known as regression to the mean, they also suggest that these students received significant assistance from the PREP program.

TABLE 10

Reading Gains of PREP Students by Eligibility Category

Group	Pre-test Score Eligibility[a]	N	N.C.E. Pre-Mean	N.C.E. Post-Mean	Mean N.C.E.[b] Gain	G.E. Pre-Mean	G.E. Post-Mean	G.E. Gain
1	B reading only	154	19.9	27.5	7.5	4.1	5.7	1.6
2	B reading and math	761	18.4	21.9	3.5	4.0	4.8	0.8
3	A reading only	892	34.2	36.6	2.4	6.2	7.4	1.1
4	A reading and math	1,095	33.3	32.5	-0.9	6.0	6.4	0.4
5	Ineligible based on test scores	397	48.7	46.7	-2.1	8.7	9.1	0.4
Total		3299	31.4	32.6	1.2	5.6	6.4	0.8

[a] PREP B eligibility was based on a reading score below 5.1. PREP A eligibility was based on a reading score between 5.1 and 7.1 or a mathematics score below 6.7.

[b] Due to rounding error the mean N.C.E. gain may be slightly different from that obtained by subtracting mean pretest from mean posttest scores.

- Reading gains ranged from a low of four months for students ineligible but served and for students eligible for both PREP A reading and PREP math services to a high of one year and six months for students receiving PREP B reading services only.

- The average reading gain for students receiving PREP services was eight months.

- Students in the "PREP B reading only group" had an average posttest score in grade equivalents of 5.7, which meant that they would be eligible for PREP A services during the following year, while the PREP B students receiving double remediation would still be eligible for PREP B reading services. Only the "PREP A reading only" group had an average posttest grade equivalent score that was high enough to make them ineligible for further PREP services.

Thus, about two-thirds of the students who received PREP services in 1983-84 should receive continued remedial assistance in the tenth grade if they are to consolidate the gains reported here.

Mathematics Gains for Students Receiving Single or Double Remediation

Gains for four different categories of students receiving remediation in mathematics are presented in Table 11. The group receiving remediation only in mathematics had the highest gain both in N.C.E.s and G.E.s, while the "ineligible" students receiving remediation in mathematics had the lowest gain.

- The group receiving remediation in one area only made greater gains than the groups receiving double remediation. The gains were great enough to make the students ineligible for further PREP services in mathematics.
- The two groups receiving double remediation remained eligible for continued PREP services in mathematics in the tenth grade.
- Comparing the data for those groups receiving remediation both in reading and mathematics, reveals that the PREP A students gained about one-half year in grade equivalents in both skills areas, while the PREP B students gained 0.8 in grade equivalents in both areas.

These findings support the hypothesis that students requiring double remediation may be better served by a special program of intensified remediation, perhaps in a "mini-school" setting, than by including them in classes with students requiring only single remediation.

TABLE 11

Mathematics Gains of PREP Students by Eligibility Category

Group	Pre-test Score Eligibility[a]	N	N.C.E. Pre-Mean	N.C.E. Post-Mean	N.C.E. Gain	G.E. Pre-Mean	G.E. Post-Mean	G.E. Gain
1	Math only	822	28.0	33.5	5.4	6.0	7.0	1.0
2	Math and A reading	1092	26.7	30.3	3.7	6.0	6.5	0.5
3	Math and B reading	748	22.0	25.3	3.3	5.2	6.0	0.8
4	Ineligible based on test scores	395	45.5	47.0	1.5	8.5	8.9	0.4
Total		3057	28.3	32.1	3.8	6.1	6.7	0.6

[a] PREP B eligibility was based on a reading score below 5.1 PREP A eligibility was based on a reading score between 5.1 and 7.1 or a mathematics score below 6.8.

[b] Due to rounding error the mean N.C.E. gain may be slightly different from that obtained by subtracting mean pretest from mean posttest scores.

- Math gains ranged from a low of four months for students ineligible but recommended for PREP services to a high of one year for students receiving PREP math services only.
- The average math gain for students receiving PREP services was six months.

VI. CONCLUSIONS AND RECOMMENDATIONS

PROGRAM SITES AND STUDENTS SERVED

The Preparation for Raising Educational Performance (PREP) program was successfully implemented in 91 high schools during the 1983-84 school year. Although there were some problems with program start-up, indications are that all of the PREP programs were operating satisfactorily at the beginning of the spring, 1984 term.

Program sites included most academic-comprehensive and vocational-technical schools. Each site was expected to offer a PREP A reading component, although two officially designated PREP B sites in the sample did not report any PREP A students. Although only nine of the 91 schools were officially designated PREP B sites, between one-third and one-half of the remaining schools in the sample provided services to PREP B-eligible students who elected to remain in their zoned high school rather than travel to one of the nine officially designated sites.

The PREP program served approximately 9,000 students during each of the two terms of the program, but since there was considerable turnover in the students participating in the program during those two terms, the total for the year was about 12,000 students. Although the program was intended primarily to serve entering ninth graders, schools were allowed to enroll tenth graders and/or holdover ninth graders as well.

Of the 9,000 students enrolled each term, about 4,500 received remediation in mathematics; about 2,400 were served by the PREP A reading component; and about 2,100 received PREP B reading remediation. In addition, about 500 students whose scores on the citywide reading and mathematics tests were above program qualifying levels were included in the program by school

administrators because of attendance problems, poor junior high school records, or other reasons.

PROGRAM GOALS

Academic Gains

Posttest results indicate that program objectives in students' academic skills were met. Students receiving PREP B reading remediation gained about one year in reading skills during the six months between administration of the pretest and the posttest, and students receiving remediation in mathematics or in PREP A reading gained about 0.6 months in grade equivalents.

However, the data indicate that students receiving remediation in only one skills area made greater gains than students receiving remediation in both skills areas. This would suggest that students requiring double remediation should be programmed differently from those requiring remediation in one basic skill only.

Attendance

Attendance data furnished by the schools indicated that program goals in the area of student attendance and retention were also met. The attendance of students in the PREP A reading component was as good or better than ninth graders who were not receiving remediation in basic skills.

The attendance rate of PREP B students was about ten percentage points below that of other ninth grade students. However, it is probably fair to say that program objectives for these students were achieved as well if one considers the following factors:

- Many students included in the PREP B component had poor attendance and behavior records, and were substantially overage for their grade. These factors reduce the incentive to attend school rather than getting a job or simply dropping out.

- Many of the students served by the PREP B component were assigned to a site that was outside the zoned school district in which they resided, and had to travel considerable distances to get there. This additional travel time could have had a negative impact on their motivation to attend school. The fact that they were unlikely to know many of the students attending that school could also have had a negative effect on them.

- Furthermore, some PREP B students were not aware that they were being assigned to a vocational-technical school. Some of these students explicitly told members of the evaluation team that they did not like the school to which they were assigned and would not have gone there if they had been told of this assignment.

Attitudinal Gains

Student responses on an attitudinal questionnaire administered by members of the evaluation team indicate that program goals of improved attitudes toward school were also met. The clear majority of students responding to the questionnaire believed that they were doing better in school and attending school more than in the previous year. These intangible evidences of success can be important in keeping these students in school, and may be justification enough for continuing the program.

STUDENT TESTING AND ELIGIBILITY

Although eligibility for the PREP program was based on students' scores on citywide mathematics and reading tests, these criteria were not always observed by the schools. Some administrators believed that a single test score is not an adequate measure of a student's need for such a remedial program; others believed that these tests are not an accurate measure of students' abilities--particularly since students taking the citywide tests in October habitually score about one-half grade lower in grade equivalents

than they do on the tests taken the previous May. Furthermore, a certain number of students entering ninth grade had not taken the tests, and could not be evaluated on that basis. Consequently, some students who should have been mainstreamed were included in the program while other students who should have been served by PREP were excluded. It seems reasonable to suggest that scores on citywide tests be evaluated in the light of other factors, such as the student's academic record, recommendatons by teachers, scores on other types of tests, and so on, so that the students who should be served by the program are in fact selected by the schools.

STUDENT PROGRAMMING

Schools participating in the PREP program had been urged to block program students as much as possible in order to simplify instruction and increase students' identification with the program and its goals. However, there was considerable diversity in how the schools actually programmed the PREP students. Roughly half of the schools block programmed their PREP students for two or more classes a day, while the other schools kept the PREP students separate from their ninth grade peers only in "official" class, in some type of mini-school, or in some other programming alternative. In some cases, the lack of block programming occurred largely because the number of PREP students to be served was very small; in other cases, it was because school administrators felt that such blocking stigmatizes students and that isolating them from other students deprives them from benefits they might derive from associating with non-remedial students. However, in a number of these latter instances, PREP students were provided with and participated in various kinds of enrichment activities which supported the school's PREP theme and increased the emotional identification of these

students with the goals of the program.

The data suggest that block programming does simplify the coordination and implementation of theme-based instruction, and that the positive benefits of such programming outweigh its negative aspects. Schools should therefore be encouraged to arrange such block programming where possible -- particularly in the case of PREP B students who have serious deficiencies in basic skills, and who also may have extensive behavioral or attendance problems. However, consideration should also given to extending the PREP B reading component to more (if not all) of the schools involved in the PREP program. A large group of PREP B students concentrated at one school places severe demands in the PREP staff at that school. These students might be better served by having a smaller number at any one program site. Other elements, such as reduced class size or individualized instruction, may be more important in the overall success of the program. Perhaps some other "connective" element -- for example, an educational philosophy such as Mastery Learning* -- may prove to be easier to implement and as effective as the thematic approach. Another possible approach to the problem is to reduce the number of themes that the school is allowed to use, so that adequate materials for those themes can be developed and shared by the schools.

However, the theme-based enrichment activities seemed to be uniformly enjoyed by and successful in the schools. The students apparently enjoyed

---

* Mastery Learning is a teaching philosophy developed by Benjamin Bloom which combines whole group instruction of short sequential units with continuous feedback, corrective instruction for those who have not achieved mastery of the material, and enrichment activities for those who have.

them, and staff members found some unique and innovative ways to use them to provide various kinds of hands-on activities for the students. Consideration should be given to increasing funding for this aspect of the PREP program in the future.

STAFF SELECTION AND SCHEDULING

The staff members involved in the PREP program seemed for the most part to be actively interested in and dedicated to the students being served. Most of them had had some experience in remediation, and had willingly volunteered to teach PREP classes or otherwise participate in the program. However, there were some teachers (and at least one program coordinator) who expressed very negative attitudes toward the students being served and toward the intent and organization of the PREP program as a whole. There were also a few teachers -- particularly in the vocational-technical schools -- who expressed willingness to work with these students but who felt that they needed to have more training in working with remedial students in order to be maximally effective. Obviously, those staff members who were actively hostile toward the program and/or to the students being served should not be further involved in the program, and those teachers who asked for more training should receive it.

One problem frequently expressed was the difficulty in scheduling common planning time for the teahers. This was largely a product of the fact that most teaching positions were "split" wih tax-levy classes. It is difficult to see how this problem might be resolved, although one possibility is to schedule at least one free period each week (if possible, the same period) for all PREP teachers.

Although virtually all of the PREP programs were technically under the supervision of an assistant principal, most of the programs were essentially run by a program coordinator--typically, a teacher with many years of remedial experience. The dedication and devotion of the program coordinator seemed to be a major element in the success of a school's program. However, few coordinators were given free time to coordinate the program, and many said that they did not have enough time to do as good a job as they would have liked. Serious consideration should be given to providing coordinators more free time to coordinate the program, and perhaps it should be a full-time position in those schools with a large PREP program.

The guidance aspect of the program seemed somewhat undernourished. Although virtually all of the official PREP B sites had assigned a full-time guidance counselor to the program, the guidance services provided to the PREP A students and in the other schools varied greatly, and in some instances may not have been as efficacious as possible.

The services of paraprofessional family workers and educational assistants were also very limited. The services of such paraprofessionals are very important to the success of any remedial program, and serious consideration should be given to assuring that the PREP program has the services of paraprofessionals.

The services of peer tutors and student mentors were also limited owing to such factors as the limited time available to students who are carrying their own full academic loads. Program planners may wish to extend their

utilization of the New York City Mentoring Project* or work closely with the schools to increase the availability of peer tutors within the school.

STAFF DEVELOPMENT AND PROGRAM ARTICULATION

Perhaps because this was the first full year of program operation, staff development activities were limited and extremely variable. In some cases, such staff development training was provided on a departmental basis; in the majority of other cases, program coordinators tried to set up formal planning and training periods for PREP teachers. However, such aspects of the program as split teacher schedules made these efforts somewhat splintered and sporadic. Obviously, time needs to be set aside to ensure that such staff development training takes place.

One common complaint of school staff members was that the central program office was not able to provide as much help as they would have liked. Central staff was simply not large enough to provide as much assistance as desired by the schools. This indicates that the central program staff should probably be enlarged to better serve the needs of the schools with PREP programs. One possibility is to provide specialized training in theme-based instruction for the staff development specialists currently working with the Chapter I-funded programs. Another possibility is to add one or

---

* The New York City Mentoring Project is designed to develop one-to-one support relationships for at-risk ninth and tenth graders. Program sites are linked with major institutions in the Metropolitan area, and 20 to 30 students in each school work with representatives from these institututions in one of five focus areas: private citizens as adult role models; career exploration and advisement; academic assistance and skills building; world of work awareness; or cultural and social enrichment.

two new positions to the central staff office to carry out various kinds of liaison functions.

Articulation of the PREP program with other programs and staff members within the schools also needs to be improved. Improved staff development training will probably also result in improved program articulation, but other efforts should be made as well to increase the interaction between PREP staff members and other school staff members working with this population of students.

RECOMMENDATIONS

Program Guidelines, Goals, and Outcomes

- Current and future guideline statements should be carefully reviewed to ensure that they are cogent and clearly understandable to PREP staff members.
- Consideration should be given to extending PREP-eligibility criteria to factors such as students' junior high school grades, attendance records, and recommendations by teachers rather than relying solely on students' scores on citywide reading and mathematics tests.
- Program goals should be reviewed to determine whether they are in fact realistic and "do-able." Specific criteria to assess program goals should be specified. Several 1983-84 PREP staff members said that they thought the expectations for PREP B students in particular were somewhat unrealistic and should be revised. Revisions should perhaps also be made in terms of students receiving single remediation and those receiving double remediation.

Themes

The use of themes as an organizing base for the PREP program should be reconsidered in terms of whether they are the best possible base for program organization. If themes are continued, central PREP staff might consider:

- Limiting the types of themes that can be utilized by the schools;

- Preparing a package of materials and instructional techniques for one or more themes that can be used by schools that do not wish to choose or develop their own theme(s);

- Helping the schools to choose the theme or themes that are most appropriate for the population they are serving and the facilities and staff resources available at that school;

- Aiding the schools in developing themes that are clearly goal oriented; and

- Helping the schools select and develop themes that are particularly successful in enrichment activities.

Student Programming

- The schools should be encouraged to block program their PREP populations as much as possible. However, such considerations as the size and type of population to be served need to be taken into account.

- The schools should be provided assistance in setting up block programs that are well developed and successful. This help might be provided by the PREP central office, or by creating a network of other schools that have had success in this area.

- Consideration should be given to creating a separate remediation program for those students requiring double remediation.

- Schools should be encouraged to develop and extend enrichment activities. Additional funding will have to be provided for this.

Staff Selection and Development

- Insure that on-site coordinators have enough release time to effectively coordinate the program.

- Make an effort to supply teachers with time for planning and articulation through scheduling, and providing common free periods.

- Funding for guidance counselors and family assistants should be more uniformly distributed throughout the schools to meet the supportive services needs of the students.

APPENDIX A
TABLE A-1

PREP Themes at Sample Academic-Comprehensive High Schools

	Summer PREP?	Theme(s)[a]	Comments
Adlai E. Stevenson*	Yes	Home Maintenance and Building Trades; Office Skills; Wood and Metal Working (2)	Theme was chosen for wide appeal of hands-on classes.
Andrew Jackson	Yes	Occupational, Educational, and Cultural Opportunities for Minorities: N.Y.C. and the World (7)	Theme was chosen to broaden student experience.
Curtis	Yes	Sound Body, Sound Mind (5)	Theme was continued from Summer PREP program.
Edward R. Murrow	No	Communications Arts (4) (four subthemes)	Theme is school's educational option.
Erasmus Hall	Yes	The Arts: Music, Art, Dance, Drama (4) The Future: Computers and Travel (3)	Theme type 4 was chosen because of Performing Arts Institute. Theme type 3 was chosen for wide appeal and educational value.
Evander Childs	Yes	World of Work (1)	Theme was continued from Summer PREP program.
George Washington	Yes	Computers: The Language of the Future (3)	Theme was chosen because of availability of computers via Ford Foundation grant.
Grover Cleveland	No	High Technology (3)	Theme was chosen because of availability of computers.
James Monroe	No	Me and My Community (6)	Theme was requested by PREP students.
John Adams	Yes	Communications Through Art and Technology (4)	Theme will be changed in the 1984-85 year to sports, because of greater student interest.
Julia Richman	Yes	The Family: Foundation for Life (7)	Theme was chosen for wide appeal.
Lafayette	Yes	Nutrition, Health, and Physical Fitness (5); Careers (1); Driving Permit Exam (7)	Theme types 1 and 7 were added because of lack of appropriate material on theme type 5.

* Centrally-designated PREP B site.

TABLE A-1 (continued)

PREP Themes at Sample Academic-Comprehensive High Schools

	Summer PREP?	Theme(s)[a]	Comments
Long Island City	No	Technology: Past, Present, and Future (3)	Theme was chosen because of availability of computers.
Martin Van Buren	No	"War Games" (computers) (3)	Theme was chosen because of availability of computers.
Midwood	No	Health Careers (2)	Theme was related to magnet school topic of medical science.
Newtown	No	Small Businesses (2)	Theme encouraged practical applications.
Park West*	Yes	Space Exploration (3)	Theme was continued from Summer PREP.
Port Richmond	No	Health and Sports (5)	Theme was requested by PREP students.
Sarah J. Hale*	Yes	City Government: Earn and Learn (2)	Theme was chosen to show relationship between school and work.
Theodore Roosevelt	Yes	Career Exploration: The World of Work (1); Cultural and Experiential Enrichment (7)	Themes were continued from Summer PREP.
Thomas Jefferson	No	Career Awareness (1)	Theme was chosen to increase job awareness.
Walton	No	The Shining Apple: New York City (6)	Theme was chosen to broaden students' experiential background.
William H. Taft	Yes	Communications (4)	Theme was chosen as "broadly applicable".

* Centrally-designated PREP B site

[a]Themes fall into seven general categories, enumerated on Table 4.

- Of 13 schools with Summer PREP programs, four continued Summer PREP themes, six used a new theme, and three combined Summer PREP and new themes.

APPENDIX A
TABLE A-2

PREP Themes at Sample Vocational-Technical High Schools

	Summer PREP	Theme(s)	Comments
Alfred E. Smith*	Yes	World of Work (1)	Theme was chosen because of school's orientation to work awareness.
Aviation	No	Careers in Aviation (2)	Theme is school's educational focus.
Chelsea	No	New York: A World in a City (6)	Theme was chosen because of program focus on vocational education and occupations in New York City.
Clara Barton	Yes	Health Careers (2)	Theme is school's educational focus.
Eli Whitney*	No	Bridges to Industry (1)	Theme was chosen because of school's many industry contacts.
Fashion Industries	Yes	World of Fashion (2)	Theme is school's educational focus.
Grace H. Dodge*	Yes	World of Work (1)	Theme was chosen because school stresses career training.
Thomas A. Edison*	Yes	Graphic Arts (2); Computers (3)	Themes were chosen because of availability of equipment.
William E. Grady	Yes	Broadcasting (2); Computers (3)	Themes were chosen because of availability of equipment.

* Centrally-designated PREP B site

- Five of the six schools with Summer PREP programs continued their Summer PREP themes.